- Pass, alpine meadows and grassy slopes, T57N R108W sect. 6, 3139 m, 14 Jul 1985, Hartman and Nelson 20802.
- Festuca baffinensis Polunin (Poaceae).—Park Co., Hoodoo Basin trail, ca. 10 air km NW of Stinkingwater Peak, grassy alpine slopes, T55N R108W sect. 35, 3048–3168 m, 22 Jul 1985, Hartman 21344.
- Poa secunda J. S. Presl var. incurva (Scribner & T. Williams ex Scribner) Beetle (Poaceae).—Park Co., immediately SW of Republic Pass, alpine meadows and grassy slopes, T57N R108W sect. 6, 3139 m, 14 Jul 1985, Hartman and Nelson 20830.
- Potentilla nivea L. (Rosaceae).—Park Co., Hoodoo Basin trail, ca. 10 air km NW of Stinkingwater Peak, grassy alpine slopes, T55N R108W sect. 35, 3048–3168 m, 22 Jul 1985, Hartman and Nelson 21333.
- Saxifraga adscendens L. var. oregonensis (Raf.) Breitung (Saxifragaceae).—Park Co., Hoodoo Basin trail, ca. 11 air km NW of Stinkingwater Peak, grassy alpine slopes, T55N R108W sect. 26, 3017–3078 m, 22 Jul 1985, Hartman 21353; on the divide 10–15 air km SSE of Silver Gate, MT, alpine meadows and rock slopes, T57N R108W sect. 9, 16, 21, 2987–3230 m, 27 Jul 1985, Hartman 21636.
- Saxifraga flagellaris Willd. ex Sternb. var. crandallii (Gand.) Dorn (Saxifragaceae).— Park Co., Hoodoo Basin trail, ca. 11 air km NW of Stinkingwater Peak, grassy alpine slopes, T55N R108W sect. 26, 3017–3078 m, 22 Jul 1985, Hartman 21376.
- Saxifraga rivularis L. ssp. rivularis var. flexuosa (Sternb.) Engl. & Irmscher (Saxifragaceae).—Park Co., Sylvan Pass to Top Notch Peak, spruce-fir and whitebark pine forests and bald summits and rock outcrops, T52N R110W sect. 19, 20, 29, 30, 2651–3108 m, 29 Jun 1987, Hartman and Snow 23566.
- -Neil Snow, B. E. Nelson, and Ronald L. Hartman, Rocky Mountain Herbarium, Department of Botany, University of Wyoming, Laramie, WY 82071-3165. (Received 4 Jan 1990; revision accepted 21 Feb 1990.)

NOTEWORTHY COLLECTIONS

ARIZONA

CATHESTECUM ERECTUM Vasey and Hack (GRAMINEAE).—Pima Co., Ragged Top, ca. 6.5 km N of Silver Bell, South slope of foothills 1 km ENE of Wolcott Peak, T11S R8E sect. 25 NE¹/₄ & sect. 30 NW¹/₄, 760 m, in silty clay soil among high-feldspar quartzite rubble, occasional in some areas, but dense with relatively continuous populations up to a hectare in others, with Encelia farinosa, Carnegiea gigantea, and Hibiscus denudatus, 25 Oct 1989, J. F. Wiens 89-RT-41 (ARIZ), determined by J. R. Reeder, 17 Nov 1989, J. F. Wiens 89-RT-44 (ASU, ASDM).

Previous knowledge. Known from NC Sonora, E to Trans-Pecos Texas, S through much of Mexico, Guatamala, and El Salvador (Swallen, J. R., The grass genus Cathestecum. J. Washington Acad. Sci., 1937, 27495–27501). Common on dry, rocky hills and plains in tropical and subtropical communities, and expected for Arizona (Gould, F. W., Grasses of Southwestern United States, Univ. Arizona Press, 1951, p. 154). Single Arizona collection by E. Palmer in 1869 (unnumbered at US) is labeled "southern Arizona". Northernmost Sonoran localities are 25 km S of Pitiquito (1932,

F. Shreve, 6020, ARIZ), and Cinta de Plata (=Sierra Babiso), 27 km SE of Magdalena, (T. R. and R. K. Van Devender, obs. 1983, pers. comm. 1989).

Significance. This the first verified Arizona population; a range extension of ca. 225 km NNE of the Pitiquito collection, and ca. 225 km NNW of the Cinta de Plata sighting. Arizona occurence is listed in most references as "southern Arizona (?)". The 1869 Palmer collection was made just 16 years after the Gadsen Purchase realigned the Arizona–Sonora boundary, and six years after the Arizona Territory was separated from New Mexico Territory, contributing to the vagueness and doubt regarding Arizona.

PISONIA CAPITATA (S. Wats) Standley (NYCTAGINACEAE).—Pima Co., Ragged Top, ca. 6.5 km N of Silver Bell, T11S R8E sect. 25 SW¼, 975 m, in silty soil in rhyolite substrate, with Celtis pallida, Justicia californica, and Ambrosia ambrosioides, 27 Mar 1989, J. F. Wiens 89-RT-20 (ARIZ), determined by P. Jenkins, 24 Sept 1989, J. F. Wiens 89-RT-37 (ASDM), 11 Nov 1989, J. F. Wiens et al. 89-RT-43 (ASU).

Previous knowledge. Known from C Sonora to Tepic, Nayarit, Mexico (Standley, P. C., Contr. U.S. Natl. Herb. 13:388–389, 1912). Herbarium search revealed northern-most Sonoran specimens from San Carlos Bay, near Guaymas, on the Gulf of California, and from 20 km S of Soyopa, Sonora (1971, R. M. Turner et al. 71–91, ARIZ). Found in tropical deciduous forest along the Río Yaqui, Sinaloan thornscrub, and Sinaloan riparian gallery communities along river terraces and washes.

Significance. First record for this genus and species in Arizona, and for the species in the United States; a range extension of ca. 460 km NNW from the Soyopa locality. The microhabitat on Ragged Top is the S-facing wall of the canyon, within a cleft measuring 30 m deep (horizontally), and 7 m wide, with vertical sides 35 m tall. In the cleft all plants are etiolated to some degree from lack of light. One female Pisonia capitata measuring 1.5 m tall and 7 m wide covers a pocket of soil in the center of the site. Within its canopy are three small plants of undetermined sex. It appears that these may originate from branches of the larger plant which contacted the soil, rooted, and were subsequently buried by soil deposition. If so, this vegetative cloning would be an unusual character for the family (though known in Bougainvillea). A fifth plant, also female is in a disjunct soil pocket 9 m from the main plant. The female plants flower, but no seed set has been noted. If the three plants suggested to be clones are, in fact, that, then this group of plants would be reproductively sterile. The isolated northern occurrence of this tropical plant is probably due to transportation of the glandular fruit by a bird, and considered a freak dispersal rather than an indication of a former continuous population.—John F. Wiens, 16920 W. Placita Mañana, Marana, AZ 85653.

MEXICO

Chandonanthus hirtellus (Fried. Weber) Mitten (Hepaticopsida: Jungermanniaceae).—Chihuahua. 17 mi E of Basaseachic on rd to Tomochic; ca. 108°01′W, 28°ca.15′N, elev. ca. 2400 m. Shaded cliff face beneath Quercus shrub, Pinus—Quercus—Pseudotsuga forest along a river, 3 Oct 1986. A. T. Whittemore et al. 2839 (MEXU, PRC) (verified by J. Vana, PRC).

Previous knowledge. Widespread in southern and eastern Asia; in the New World known only from the Queen Charlotte Islands, British Columbia (W. B. Schofield, J. Hattori Bot. Lab. 31:272. 1968).

Significance. The first collection at low latitudes in the New World, representing a range extension of ca. 3500 km.

Hypnum vaucherii Lesq. (Bryopsida: Hypnaceae).—Coahuila—Nuevo Leon border. Ridge of Sierra La Marta, saddle immediately E of Cerro Morro, ca. 23 km (by air) ESE of San Antonio de las Alazanas; 100°22′W, 25°12′N, elev. 3600 m. Around crack

in rock face on crest of ridge in Senecio-Lupinus-grass herbland, 22 Jul 1985. A. T. Whittemore et al. 2647 (MEXU).

Previous knowledge. Circumboreal, S in western North America to Arizona and Colorado (Ando, J. Sci. Hiroshima Univ., Ser. B., Div. 2, Bot. 16:7–22. 1976). Significance. New to Mexico.

Omphalanthus wallisii (Jack & Stephani) Gradst. (Hepaticopsida: Lejeuneaceae).— Chiapas. Disturbed cloud forest 5.5 mi SW of Motozintla on road to Huixtla; 92°ca. 17′W, 15°ca.20′N, elev. ca. 1800 m. On bark of trees, with Dichaea, 6 Jan 1984. S. Sundberg et al. s.n. (CAS, MEXU, NY) (verified by B. M. Thiers, NY); forming clumps on high NW-facing roadbank, same location and date. A. T. Whittemore et al. 2191 (MEXU, MO).

Previous knowledge. Colombia (Stephani, Species Hepaticarum 4:699, Geneva, 1911, as Peltolejeunea wallisii Jack & Steph.).

Significance. New to North America.

Rhynchostegiopsis planifolia H. Crum & E. Bartram (Bryopsida: Hookeriaceae).—Oaxaca. 31.4 mi S of Valle Nacional on hwy. 175; 96°ca.30′W, 17°ca.34′N, elev. ca. 3000 m. Shaded bank beneath bamboo on damp vertical roadbank, cloud forest with Pinus, 24 Aug 1982. A. T. Whittemore 1889A with M. Leidig (MEXU, MO) (verified by B. Allen, MO).

Previous knowledge. Known only from Jamaica (Crum & Bartram, Bull. Inst. Jamaica Sci. Ser. 8:55-56. 1958).

Significance. New to Mexico.—A. T. WHITTEMORE, Dept. of Biology, Campus Box 1137, Washington University, St. Louis, MO 63130.

ANNOUNCEMENT

SEVENTH WILDLAND SHRUB SYMPOSIUM

The Shrub Research Consortium is sponsoring the Seventh Wildland Shrub Symposium 29–31 May 1991 at the Sun Valley Lodge/Inn, Sun Valley, Idaho. The symposium will address the biology and management of shrubs in riparian zones and other aspects of shrublands. A field trip is planned to view a variety of mountain meadow riparian areas. Contributed papers of 20 minutes duration are invited. The proceedings will be published by the USDA Forest Service, Intermountain Research Station.

If you would like to present a paper, send a title and abstract by 15 Dec 1990 to: Shrub Research Consortiuim, W. P. Clary, Forest Sciences Laboratory, 316 East Myrtle Street, Boise, ID 83702.

To receive preregistration materials and information please contact: Nancy Ness, Division of Continuing Education, Boise State University, 1910 University Drive, Boise, ID 83725.